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Therapeutic Phlebotomy Related to Polycythemia Vera and Hemochromatosis

Dylan Cimo, Nathan Miller, Emily Neal

Cedarville University School of Nursing

PATIENT CARE ISSUE

- Therapeutic phlebotomy as first-line treatment of blood disorders
- Blood disorders: Polycythemia Vera and Hemochromatosis
- Other treatments include Hydroxyurea, Interferon Alpha, Erythrocyte Apheresis, Aspirin, and Deferoxamine
- Some medical professionals prefer alternative treatments to phlebotomy

EVIDENCE-BASED PRACTICE QUESTION

Question: Is therapeutic phlebotomy the best treatment option for Polycythemia Vera and Hemochromatosis?

P: Patients affected by Polycythemia Vera and Hemochromatosis

I: Therapeutic Phlebotomy

C: Pharmacologic treatments

O: Relieve symptoms more successfully with fewer side effects

REGISTERED NURSE INTERVIEW

- Paul and Amber, Registered Nurses at Springfield Regional Hospital
- Neither RN had encountered a patient in need of therapeutic phlebotomy on the Cardiac Step-down Unit

STANDARD OF CARE

- Standard of care at Springfield Regional Hospital
- “A procedure called phlebotomy is the best method for removing excess iron from the body,” (Dugdale, 2008)
- Springfield Regional Hospital considers phlebotomy to be the best method for treating polycythemia vera (Dugdale, 2009)

REFERENCES

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- Siddique, A., Kowdley, K. V. (2012). Review article: the iron overload syndromes, *Alimentary Pharmacology and Therapeutics*, 35, 876-893.

RESULTS & METHODS

Level of Evidence	Author	Article	Search Engine	Keywords
Level 7	Antle, Emily	Who needs a therapeutic phlebotomy	CU Library	Therapeutic phlebotomy
Level 5	Cook, L. S.	Therapeutic phlebotomy	Google	Types of therapeutic phlebotomy
Level 5	Finazzi, G.	How I treat patients with polycythemia vera	Google	Therapeutic phlebotomy for polycythemia vera
Level 5	Finazzi, G.	Evidence and expertise in the management of polycythemia vera and essential thrombocytopenia	CU Library	Polycythemia vera
Level 2	Houschyar, K. S.	Effects of phlebotomy-induced reduction of body iron stores on metabolic syndrome: results from a randomized clinical trial	PubMed	Therapeutic phlebotomy
Level 6	Manco, M.	Back to past leeches: repeated phlebotomies and cardiovascular risk	PubMed	Therapeutic phlebotomy
Level 5	Siddique, A.	Review article: the iron overload syndromes	CU Library	Hemochromatosis treatment

SYNTHESIS OF EVIDENCE

- Therapeutic phlebotomy is currently considered first-line treatment for multiple blood disorders (Cook, 2010)
- Medications were found to have a higher incidence of adverse affects (Siddique, 2012)
- Therapeutic Phlebotomy is the cheapest form of treatment (Siddique, 2012)

EVIDENCE-BASED PRACTICE RECOMMENDATIONS

- Problem-focused triggers
- Identification of clinical problem: Therapeutic phlebotomy as first-line treatment for blood disorders
- There is not a sufficient research base
- Practice is based on expert opinion and case reports
- Springfield Regional Hospital implements therapeutic phlebotomy
- Springfield Regional Hospital should continue implementing this practice based on the current research

LIMITATIONS

- RN interview did not indicate this topic as a major issue
- There are not many current research articles on therapeutic phlebotomy